

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An industrial process for recovering pure fentanyl from an impure aqueous preparation comprising fentanyl containing phenethylpiperaniline, the process comprising:
 subjecting said impure aqueous preparation to a reverse-phase high performance preparative liquid column chromatography, **the column containing a stationary phase, the stationary phase being bonded-phase silica containing ligands selected from the group consisting of butyl-, octyl- and octadecyl-moieties**, the chromatography comprising contacting the column with the aqueous preparation and then eluting the column with a mobile phase comprising an aqueous acidic solution containing an organic solvent, **the aqueous mobile phase pH being in the range of from about 2.5 to about 3.5**, and recovering pure fentanyl,
 wherein the pure fentanyl comprises a phenethylpiperaniline impurity level of less than about 0.010 weight percent, and further wherein a loading ratio of column media to fentanyl loaded onto the column is in the range of from about 50 to about 150.
2. (Canceled)
3. (Previously Presented) The process of claim 1 wherein the loading ratio is in the range of from about 70 to about 130.
4. (Cancelled)
5. (Cancelled)
6. (Currently amended) The process of claim **[[5]] 1** wherein the ligand is octyl-silane.
7. (Canceled)
8. (Previously Presented) The process of claim 1 wherein the acid employed to acidify the aqueous mobile phase is selected from the group consisting of acetic, formic, tartaric, hydrobromic, nitric and hydrochloric acid.
9. (Cancelled)

10. (Currently amended) The process of claim [[9]] 1 wherein the pH of the aqueous mobile phase is in the range of from about 2.8 to about 3.2.
11. (Previously Presented) The process of claim 1 wherein the organic solvent is an alcohol.
12. (Previously Presented) The process of claim 11 wherein the alcohol is selected from the group consisting of methanol, propanol, isopropanol, butanol and t-butanol.
13. (Previously Presented) The process of claim 1 wherein the organic solvent is acetonitrile.
14. (Previously Presented) The process of claim 1 wherein the impure preparation is acidified so as to prepare a fentanyl salt.
15. (Original) The process of claim 14 wherein the acid employed to acidify the aqueous solution of fentanyl is an inorganic acid.
16. (Original) The process of claim 15 wherein the acid is selected from the group consisting of hydrochloric acid, hydrobromic acid, phosphoric acid, phosphorous acid, sulfuric acid and nitric acid.
17. (Original) The process of claim 14 wherein the acid employed to acidify the aqueous solution of fentanyl is an organic acid.
18. (Original) The process of claim 17 wherein the organic acid is selected from the group consisting of acetic acid, formic acid, oxalic acid, succinic acid, lactic acid and tartaric acid.
19. (Original) The process of claim 14 wherein the pH of the aqueous solution of fentanyl is in the range of from about 2 to about 5.
20. (Original) The process of claim 19 wherein the pH of the aqueous solution of fentanyl is in the range of about from about 2.5 to about 3.5.
21. (Original) The process of claim 16 wherein the acid is hydrochloric acid.
22. (Previously Presented) The process of claim 13 wherein the concentration of acetonitrile in the aqueous mobile phase is in the range of from about 2 to about 100 volume percent.

23. (Previously Presented) The process of claim 13 wherein the concentration of acetonitrile in the aqueous mobile phase is in the range of from about 5 to about 10 volume percent during the collection of the purified fentanyl.

24. (Currently amended) A process for purifying an impure preparation of fentanyl containing phenethylpiperaniline which comprises the steps of:

(a) packing a preparative chromatographic column with a reverse-phase chromatographic packing material comprising bonded-phase silica containing ligands selected from the group consisting of butyl-, octyl- and octadecyl-moieties;

(b) passing through said column an aqueous, acidified solution of impure fentanyl at a loading ratio of from about 50 to about 150; and

(c) eluting said column with an aqueous acidic solution of an organic solvent with a pH in the range of from about 2.5 to about 3.5 to produce an eluate containing fentanyl having less than about 0.010 weight percent phenethylpiperaniline.

25. (Previously Presented) The process of claim 24 wherein the eluate is divided into four cuts wherein:

- (i.) a first cut is discarded,
- (ii.) a second cut that is combined with a fourth cut wherein the aqueous solution of an organic solvent is reduced and then recycled through the column, and
- (iii.) a third cut that contains less than about 0.010 percent phenethylpiperaniline.

26. (Cancelled)

27. (New) An industrial process for recovering pure fentanyl from an impure aqueous preparation comprising fentanyl containing phenethylpiperaniline, the process comprising:

acidifying the impure aqueous preparation to prepare a fentanyl salt with a pH in the range of from about 2.5 to about 3.5;

subjecting said impure aqueous preparation to a reverse-phase high performance preparative liquid column chromatography, the column containing a stationary phase, the stationary phase being bonded-phase silica containing ligands with octyl-moieties, the chromatography comprising contacting the column with the aqueous preparation and then eluting the column with a mobile phase comprising an

aqueous acidic solution containing an organic solvent, the aqueous mobile phase pH being in the range of from about 2.5 to about 3.5, and

recovering pure fentanyl,

wherein the pure fentanyl comprises a phenethylpiperaniline impurity level of less than about 0.010 weight percent, and further wherein a loading ratio of column media to fentanyl loaded onto the column is in the range of from about 50 to about 150.